

ABSTRACT

Systems and methods of actuating engine valves using a hydraulic valve actuation system are disclosed. The valve actuation system includes a master piston and two slave pistons slidably disposed in bores provided in a housing. The master piston and two slave pistons are connected together by a hydraulic circuit. Linear motion imparted to the master piston is transferred to the two slave pistons via the hydraulic circuit. In turn, the two slave pistons may actuate one or more engine valves directly or through an intermediate valve bridge. A valve seating device may be provided to assist in seating the engine valves in embodiments where the valve actuation system is adapted to provide variable valve actuation.